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## New VS-8E2Tx06-E and VS-8E2Tx06FP-E FRED Pt™ Hyperfast Rectifiers

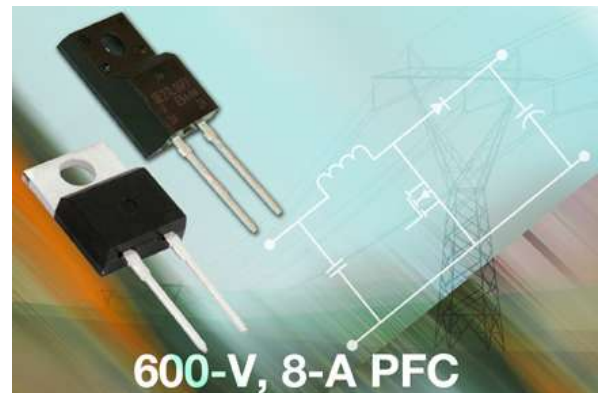
### The News:

### Vishay's New 600-V, 8-A PFC Rectifier Series Features Diodes with Voltage Drop as Low as 1 V and Recovery Charge as Low as 62 nC in 175 °C-Rated Packages

Vishay Intertechnology, Inc. (NYSE: VSH) announces six new FRED Pt™ hyperfast rectifiers for consumer electronics applications. The new 600-V, 8-A devices feature an ultra-low typical voltage drop of 1 V at rated current, fast recovery times as low as 16 ns in hard switching conditions, and typical leakage current at 125°C as low as 30 µA.

### Product Features:

- Ultra-low typical voltage drop of 1 V at rated current
- Fast recovery times as low as 16 ns
- Typical leakage current at 125°C down to 30 µA
- Recovery charge down to 62 nC
- Three versions available for DCM/CRM, CRM, and CCM SMPS PFC
- Available in TO-220AC and TO-220FPAC packages with a 175 °C maximum junction temperature rating



### Key Specifications:

Device number	Typical PFC Application	Package type	Max $V_F^*$ at 25 °C (V)	Typical $t_{RR}^{**}$ at 25 °C (ns)	Typical $Q_{RR}^{**}$ at 125 °C (nC)
VS-8E2TL06-E	DCM / CRM	TO-220AC	1.07	200	2400
VS-8E2TH06-E	CRM	TO-220AC	2.5	22	120
VS-8E2TX06-E	CCM	TO-220AC	3.2	16	62
VS-8E2TL06FP-E	DCM / CRM	TO-220FPAC	1.07	200	2400
VS-8E2TH06FP-E	CRM	TO-220FPAC	2.5	22	120
VS-8E2TX06FP-E	CCM	TO-220FPAC	3.2	16	62

\*At  $I_F = 8$  A

\*\*At  $I_F = 8$  A,  $di/dt = 200$  A/µs,  $V_R = 390$  V



## Market Applications:

- Power factor correction (PFC) for switchmode power supply (SMPS) applications in laptop computer and printer adaptors, desktop PCs, TVs and monitors, game controllers, and ac-to-dc power supplies in DVD and Blu-ray players
- Power supplies for lighting/ballast applications

## The Perspective:

Addressing 70-W to 400-W switchmode power supply (SMPS) applications, Vishay's new FRED Pt™ hyperfast rectifiers will provide an energy-efficient power factor correction (PFC) solution for laptop computer and printer adaptors, desktop PCs, TVs and monitors, game controllers, and ac-to-dc power supplies in DVD and Blu-ray players. Three device versions in isolated and non-isolated packages are available to suit the main types of SMPS PFC implementations. The rectifiers will also be used for lighting/ballast applications. Their low  $V_F$ , optimal stored charge, and low recovery current are designed to minimize conduction and switching losses, improve application efficiency, and reduce EMI generation.

**Availability:** Samples and production quantities of the new hyperfast rectifiers are available now, with lead times of 12 weeks for larger orders

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